ACKNOWLEDGMENTS

I would like to thank Dr. Charles G. Sibley for arranging my visit to the Peabody Museum and Mrs. E. H. Stickney for her able assistance during my stay. My studies were financed by a Chapman Grant from The American Museum of Natural History.

References:

Delacour, J. 1959. The waterfowl of the world, vol. III. Country Life Ltd., London. 270 pp.

Johnsgard, P. A. 1960. Hybridization in the Anatidae and its taxonomic implications. Condor 62: 25-33.

- 1965. Handbook of waterfowl behavior. Cornell Univ. Press, Ithaca, N.Y. 378 pp.

Weller, M. W. 1967. Notes on some marsh birds of Cape San Antonio, Argentina. Ibis 109: 391-411.

Journal Paper No. J-5821 of the Iowa Agriculture and Home Economics Experiment Station, Ames, Iowa. Project No. 1504.

Observations from the Interior of Muscat and Oman during 1966–67

by Peter A. Smith

Received 14th October, 1968

Introduction

Between January 1966 and August 1967 I was able to spend fifteen months in the Sultanate of Muscat and Oman, five three-month tours, four of them in the Interior. Whilst working from a number of camps in different areas it was possible to cover much of the Interior and make some observations of the avifauna. The time spent in any one area varied from a week to two months, unavoidably resulting in an incomplete picture being obtained of the birds in each area. From the scattered observations, however, it is hoped to throw some light on the bird life of an otherwise virtually unknown area.

The area covered lies north of latitude 21° 20' and west of longitude 58°, between the Mountains of Oman to the east and north-east, and the sandy borders with Abu Dhabi and Saudi Arabia to the north-west and west. Numerous wadis run in a roughly south-westerly direction from the foothills of the mountains, through gravel plains, towards the sand dunes in the west and the desolate salty depression of the Umm as Samim. The population is concentrated in towns and villages in the foothills, with Bedus scattered amongst the wadis.

Resident birds

Most of the resident bird population is likewise concentrated in the foothills and wadis where permanent vegetation occurs, along with the few scattered pools. In these areas Small Pin-tailed Sandgrouse *Pterocles exustus* is perhaps the most numerous and widespread species. Lichtenstein's Sandgrouse *Pterocles lichtensteinii* was also found in good numbers in the Huraymah area and *Spotted Sandgrouse *Pterocles senegallus* recorded at Afar. The Great Grey Shrike *Lanius excubitor* is thinly but widely distributed in most large wadis, along with smaller overall numbers of Arabian Babblers *Turdoides squamiceps* which are invariably seen in parties of five or six. The Egyptian Vulture *Neophron perconpterus* and Raven *Corvus corax* are particularly common around rubbish dumps at most camp sites, and uncommon elsewhere. At the Afar camp dump up to seven large vultures, probably Griffon Vultures *Gyps fulvus* were seen in January 1966. A huge nest was reported in February 1966 and located ten feet up in the crown of an isolated tree in the Huraymah area. No bird was seen, however, and the nest, about five feet across, was empty. Single large vultures were seen on two occasions in May and July 1966 in the Wadi Aswad area.

Among the resident larks the Black-crowned Finch-lark *Eremopterix* nigriceps is particularly numerous in the Yawa-Suneinah area in winter. In summer, small flocks were recorded around the Wadi Biladi and Jebel Aswad camps in 1966 and in the Wadi Amairi in 1967. The Hoopoe-lark *Alaemon* alaudipes has a remarkably wide, but thin distribution, occurring in near desolate regions even in mid-summer. One was observed displaying in Wadi Aswad in May 1966. Desert Larks *Ammomanes deserti* are well distributed. The status of the Crested Lark *Galerida cristata* appears uncertain. Records from Afar in winter and Wadi Amairi in summer suggest that it may be resident, with increased numbers in winter.

Near the foothills, a few Grey Francolin Francolinus pondicerianus and Sand Partridge Ammoperdix heyi were found between Awaifi and Ibri. Around the towns and villages House Sparrows Passer domesticus and Crag Martins Ptyonoprogne rupestris are common. At Ibri the Little Green Bee-eater Merops orientalis and Purple Sunbird Cinnyris asiatica appear to be resident. A flock of c. 20 Rock Doves Columba livia were seen feeding on cultivated land outside Ibri in March 1967 and a single bird was seen in Wadi al Ayn to the south on 29th November, 1966. These birds may have come from the mountains where they are resident. The Senegal Dove Streptopelia senegalensis was recorded infrequently in small numbers in widely scattered areas, and regularly at the Wadi Zibra camp during the autumn passage of 1966. The *Little Owl Athene noctua was recorded on a few occasions between Wadi Aswad and Suneinah from June to December in 1966. On 15th July, 1966, a *Barn Owl Tyto alba was seen hunting around the Jebel Aswad camp in the early morning. Meinertzhagen gives no daylight hunting records in Birds of Arabia. Next day a Barn Owl, presumably the same one, was rescued from a drum of water into which it had fallen. In November 1966 a Little Owl was caught in a hole in the ground in Wadi al Ayn, and after examination was released. Presumably both species of owl are resident. A pair of Hume's Chats Oenanthe alboniger were recorded daily in January 1966 at Afar. Birds of Arabia suggests that these were resident.

Winter visitors

In winter this resident population is reinforced by a variety of visitors, most of them in small numbers. The Desert Wheatear Oenanthe deserti, however, arrives in large numbers in the autumn and was recorded in all areas covered, being particularly common in the Yawa area. Desert Warblers Sylvia nana are also well distributed but in smaller numbers. These two species were the only winter visitors which were regularly recorded in different areas.

At Afar, where permanent water pools occur in Wadi Halfain, the following species were recorded between the 18th and 26th January, 1966:

*Moorhen Gallinula chloropus: 6+, daily.

Coot Fulica atra: 6+, daily.

Teal Anas crecca: 2 on 18th, 1 on 21st.

Redshank *Tringa totanus:* 1 on 21st. Green Sandpiper *Tringa ochropus:* 1 on 18th. Greenshank *Tringa nebularia:* 1 on 18th, 5 on 21st.

Little Ringed Plover Charadrius dubius: 4 on 24th.

Around the Afar camp up to four *Starlings *Sturnus vulgaris* in the same period and a few White Wagtails *Motacilla alba* were present daily. This appeared to be near the northern limit of their winter range, as only one single bird was seen north of Afar in winter, at Mamur in February 1966. An unidentified nightjar *Caprimulgus*? was seen at Afar on 18th January.

Unfortunately only nine days were spent in this interesting area before I moved north to a camp in the Huraymah area. In this waterless region only the commoner residents, in particular Small Pin-tailed and Lichtenstein's Sandgrouse, two common winter visitors, Desert Wheatears and Desert Warblers, and the following were recorded during February 1966:

Houbara Bustard *Chlamydotis undulata*: One obtained by a Bedu west of Jebel Qusayba; this species may be resident.

- Lesser Whitethroat *Sylvia curruca*: Two seen in a wadi near Mamur on 10th February, presumably indicating that the species winters in Interior Oman (also recorded on the Batinah coast in winter).
- *Red-tailed Chat Oenanthe xanthoprymna: Single bird on rocky outcrops near Jebel Qusayba on 5th and 7th February.

Hoopoe *Upupa epops*: Single birds in the same area on the same dates. An unidentified nightjar seen in headlights near the Huraymah camp.

Of the 1966-67 winter, only November and December were spent in Interior Oman, in the Yawa area. Here, a more uniformly lightly vegetated area, again waterless and with some sand dunes, a few new species were recorded. The usual residents and common winter visitors were seen. A feature of the bird life here was the abundance of Black-crowned Finchlarks. New winter visitors were as follows:

*Short-eared Owl Asio flammeus: 2 on 20th November, 1 on 17th December.

Cream-coloured Courser Cursorius cursor: 3 on 21st November.

- Kestrel *Falco tinnunculus:* Single birds seen on 28th November and 14th December.
- Long-legged Buzzard *Buteo rufinus:* Single birds seen at close range on 27th November and 11th December, one perched and one pursuing a hare.
- Isabelline Wheatear Oenanthe isabellina: One around camp during December.
- Black-throated Thrush Turdus ruficollis: 13 on camp, 15th December.
- 29th November, an unidentified thrush was seen briefly in Wadi al Ayn. Song Thrush sized, it was predominantly grey-brown, with paler throat and moustachial streaks. In flight, rufous underwing was visible.

- A Blue Rock-thrush *Monticola solitarius* at Ibri on 23rd February, 1967, had presumably wintered there, unless it was an early migrant.
- Single Houbara Bustards were seen on 19th November and 17th December.

The remainder of the 1966-67 winter was spent on leave and on the Batinah coast.

Spring migration

Early in March the first passage migrants begin passing through Interior Oman. Most records are for the spring of 1966, but the earliest evidence of migration was seen on 3rd March, 1967, near Ibri, whilst on a brief visit from the coast. Swifts Apus apus were passing along a valley in the foothills in the early morning at a rate of several hundred per hour. In 1966, however, single birds, Apus apus/pallidus? were seen on only two occasions, on 27th March and 11th May. An Isabelline Shrike Lanius cristatus and a Hoopoe were seen in the foothills of the Hamrat Duru on 5th March. *Pied Wheatears Oenanthe leucomela and Red-tailed Chats were seen on most days in mid-March in the Wadi Zibra/Wadi Aswad areas. Also seen in the Wadi Zibra were a White Wagtail on 11th March, a Black Redstart Phoenicurus ochruros on 18th March and a Blue Rock-thrush on camp the same day. This bird was still present next day, when a & Rock-thrush Monticola saxatilis was seen in a nearby wadi. The first Swallow Hirundo rustica was seen on 25th March, followed by a few others at the Wadi Zibra camp next day, along with c. 10 White Wagtails, a Wheatear Oenanthe oenanthe and a few unidentified wheatears. Apart from a Swift on the 27th and an Isabelline Shrike on the 29th the only migrants seen in this area from 27th March to 7th April were a few White Wagtails and unidentified wheatears.

From 8th-20th April, 1966, I was on leave, and during this period in 1967 I was on the Batinah coast, resulting in a regrettable gap in observations. In 1966 at this time a considerable movement of Rollers *Coracias garrulus* was reported by local Bedus, two of whom said that they had each shot seven (for food) on one day alone in the Wadi Zibra area. Judging from the feathers around camp this was probably not an exaggeration.

- 21st April: At the Wadi Zibra camp: 1 Isabelline Shrike, 1 White Wagtail, 2 wheatears(?), and a flock of c. 15 Bee-eaters *Merops apiaster* passed over. One Roller in a nearby wadi.
- 22nd April. Wadi Zibra camp: 1 Isabelline Shrike and 1 Rufous Warbler Agrobates galactotes. Wadi Zibra: 1 Buzzard Buteo buteo. Wadi Aswad: 1 Isabelline Shrike and 1 Roller. Masruq camp, Wadi al Ayn: 1 Rufous Warbler and 1 Spotted Flycatcher Muscicapa striata.
- 23rd April: Masruq camp: As for 22nd, plus a 3 *Ortolan Emberiza bortulana and a Roller nearby.
- 24th April: Masruq camp: 2 Ortolans, 1 Spotted Flycatcher and another Ortolan a few miles away.
- 25th April: Masruq camp: Red-backed Shrike Lanius collurio, 3 Ortolans and a Rufous Warbler. In open country nearby a Tree Pipit Anthus trivialis, exhausted, died soon after being picked up.

26th April: Wadi Zibra camp: 1 Wheatear. Huraymah area: 1 Roller, 1 Lesser Whitethroat, 2 Whitethroats *Sylvia communis*, a Spotted Flycatcher and 2 Rufous Warblers.

27th April: Wadi Zibra camp: 1 Yellow Wagtail Motacilla flava.

29th April: Wadi Zibra camp: 1 of Ortolan.

3rd May: Wadi Zibra camp: 1 Swallow and 1 Rufous Warbler.

5th and 6th May: Wadi Zibra camp: 1 Spotted Flycatcher and 1 Swallow.

7th May: Wadi Zibra camp: 1 Yellow Wagtail and c. 5 unidentified warblers, possibly Reed Warblers *Acrocephalus scirpaceus*. These were skulking in the shade beneath caravans and very difficult to observe.

8th May: A few warblers still around camp.

9th and 10th May: Wadi Zibra camp: 1 Swallow, 1 Yellow Wagtail and a Spotted Flycatcher, also on the 11th a Swift over Wadi Aswad.

13th May: A J Red-backed Shrike in Wadi Aswad.

14th to 20th May: A few "reed-type" warblers on camp, and a Spotted Flycatcher.

In 1966 no spring passage migrants were seen after 20th May. In 1967 much of the spring passage was observed on the Batinah coast, and only the tail-end from 20th May onwards was seen in the Interior. At a desolate camp on the northern edge of the Umm as Samim the following observations were made:

20th May, 1967: 1 Sand Martin *Riparia riparia* and a probable Mourning Chat *Oenanthe lugens*.

21st May: 1 Swallow.

22nd May: 1 Sand Martin.

25th May: 1 unidentified pipit, probably a Tree Pipit.

A late Swallow passed over on 9th June, the first bird seen since 25th May.

Summer observations

After the spring migration, the bird life at camp sites away from the large wadis and the foothills is reduced to the scavengers and possible straggling migrants. At small camps even the scavengers are absent in June, July and probably August. In open country the only birds which might be seen are occasional Hoopoe-larks and Desert Larks. It is possible to drive for hours without seeing a bird, but in the larger wadis, particularly near the foothills, the commoner residents can usually be found.

During the summer months of 1966, up to the end of July I was working in the region of Wadi Aswad, from camps in Wadi Zibra and on Jebel Aswad. Towards the end of May Small Pin-tailed Sandgrouse were nesting. Several nests were found near Wadi Aswad, towards the Hamrat Duru. These were usually in shadeless burning gravel plains, sometimes near light vegetation affording some shade and usually contained three eggs. Meinertzhagen states in *Birds of Arabia* that usually two eggs are laid and that the nests are never in shade. Nests were only found when the perfectly camouflaged sitting hen rose at the last possible moment to avoid being run over by vehicles. Sand Partridges with young were seen on Jebel Aswad in June. Blackcrowned Finch-larks appeared in a flock around the Wadi Zibra camp on 9th June, and thereafter were seen regularly during the summer at the Jebel Aswad camp. A Little Owl was seen near here on 25th June and a Barn Owl was caught and released on camp on 15th and 16th July. An unidentified black and white chat was seen flying across a pass through Jebel Aswad in June. It appeared to be carrying something and may have been breeding. In the nearby wadis, Great Grey Shrikes and Arabian Babblers were present as usual, along with House Sparrows and a few Crag Martins around the Bedu camps and walls. Only occasional Egyptian Vultures and Ravens were seen at this time of the year.

The summer of 1967 was spent in and around two camps on the northern edge of the Umm as Samim, one near the Saudi Arabian border and the other in the Wadi Amairi. The Umm as Samim is a low-lying drainage area for many of the wadis crossing Interior Oman. Shaped like a rough triangle with sides about 80 miles long, it consists of wet sand covered by a crust of salt, the surface of which varies from being flat to resembling a miniature moonscape with walls of rock-salt up to three feet high, and impassable to normal vehicles. Apart from these areas Land Rover access varied from being very good to treacherous in parts and impassable in very boggy areas. Nothing grows here and any bird life will be straggling migrants.

The late spring passage migrants recorded at the camp near the border in May–June 1967 were mentioned earlier. After the late Swallow on 9th June the next bird seen on camp was an exhausted *Terek Sandpiper *Xenus cinerea* on 18th June. First seen, and then photographed, in the shade of a tent, it was later caught inside one. Next day, like most birds found in this condition, it died. On 16th July the next bird appeared, a Hemprich's Gull *Larus hemprichii* flying crazily around camp at midday, when the shade temperature was, as usual, around 125°F. It died shortly after being picked up. A Hoopoe-lark in a sparsely vegetated wadi north of camp appeared to be the only resident within 30 miles of camp during June–July.

On 22nd July, 1967, following a rare rainstorm which resulted in part of the Umm as Samim being flooded for some weeks, a Red-necked Phalarope *Phalaropus lobatus* was seen and photographed on a small salt water pool in the centre of the Umm. The bird appeared normal and to be feeding, although the saturated water was almost certainly lifeless. Next day it had gone. This was the only bird recorded during about 80 hours travel through the Umm as Samim in the summer of 1967, during which most parts were visited.

On camp, a Common Sandpiper *Tringa hypoleucos* arrived on 27th July, followed by single Swallows on 31st July and 1st August, marking the beginning of the autumn migration.

In contrast to the desolate surroundings of the one camp, the other summer 1967 camp was situated near the Wadi Amairi, wide and thickly vegetated with many trees. Here, summer visiting Eastern Turtle Doves *Streptopelia turtur* were common, flocks of up to 20 being seen. A few Senegal Doves were present, and a squab shown to me by a Bedu indicated that they were breeding. Other birds recorded were occasional Hoopoe-larks and Great Grey Shrikes, small flocks of Black-crowned Finch-larks, a Little Green Bee-eater at Awaifi on 8th June and another near camp on 11th August.

The first autumn passage migrant in this area was a Green Sandpiper, on camp, on 4th August when a Hoopoe and an unidentified wheatear were also seen, in the Wadi Amairi. Next day a "ring-tailed" harrier *Circust* was re-

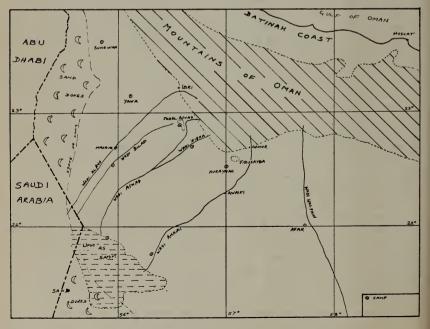
corded, flying rapidly through the trees. On 13th August two Houbara Bustards, two Ravens—the first of the summer, and c. 10 Crested Larks were seen in the wadi.

Autumn migration

In 1966, two months after the last spring passage migrant was seen, the first of the autumn passage migrants appeared. On 19th July Long-legged Buzzards were seen in two areas in the Jebel Aswad region. One of the birds was disturbed from a freshly killed hare. A Spotted Flycatcher appeared at the Jebel Aswad camp on 29th July. The few records in July 1967 from the Umm as Samim area confirmed that the first autumn migrants begin appearing towards the end of July. The August 1967 records suggested that only a trickle of migrants was passing through at that time. Leave in August and September 1966 and my departure from Oman in mid-August 1967 resulted in an unfortunate gap in observations. All other autumn passage records are for October onwards, 1966.

The variety of species encountered in October 1966 was quite surprising, although the visible migrants were in no great numbers. At the Wadi Zibra camp a Spotted Flycatcher was present from 1st-3rd October, accompanied by a Swallow on the 2nd and a Wheatear on the 3rd.

From 3rd-30th October all observations were made in and around a camp situated near Wadi Biladi between the Wadis Aswad and al Ayn, towards the edge of the Empty Quarter. The surroundings were desolate gravel plains with scant vegetation, except in the major wadis about 15 miles away. The



SKETCH MAP OF INTERIOR OMAN

only residents seen in this area were occasional Ravens, Egyptian Vultures and flocks of Small Pin-tailed Sandgrouse flighting to water. In the Wadi al Ayn these sandgrouse were common, with a few Hoopoe-larks, Blackcrowned Finch-larks and Desert Wheatears.

On camp, Swallows were recorded daily, c. 10 on the 24th being the peak daily total. White Wagtails were first recorded on the 4th, but not again until the 21st, thereafter two or three daily until camp was moved on the 30th. Wheatears, usually not identified, appeared in ones and twos daily until the 14th, including an Isabelline Wheatear on the 4th. A σ Desert Wheatear was on camp on the 17th and 21st. A probable Tree Pipit arrived on the 17th and one or two were present daily until the 23rd. A similar pipit, exhausted, was caught in open country near camp on the 17th and positively identified as a Tree Pipit. Single records of other migrants were as follows:

- 4th: A *Spotted Crake *Porzana porzana* skulking beneath parked vehicles; also a Hoopoe and a Sand Martin.
- 10th: An Isabelline Shrike, which remained on camp for six days.
- 12th: A warbler, possibly a Reed Warbler, skulking in the shade of caravans.
- 13th: An unidentified nightjar was disturbed from scant vegetation near camp. A Collared Dove *Streptopelia decaocto* arrived on camp and stayed for two days.
- 16th: In Wadi al Ayn a possible Chiffchaff *Phylloscopus collybita* and a Long-legged Buzzard were seen. A few days later, after disturbing a hare with a Land Rover, a Long-legged Buzzard swooped and picked up the rabbit-sized hare just in front of the vehicle. The hare proved to be just too heavy and was dropped, and although injured it made off again, only to be pinned to the ground as the buzzard made another fast, accurate attack. This time the buzzard proceeded to devour its prey *in situ*, allowing approach to within 50 yards.

On camp two larks arrived but could not be positively identified.

- 18th: A *Bluethroat *Cyanosylvia svecica* arrived and stayed four days, showing little fear whilst feeding at the entrance of our mess tent.
 - A probable Lesser Whitethroat was seen briefly.
- 24th: An exhausted *Little Grebe *Podiceps ruficollis* was caught on camp. Not surprisingly it died the same night. I believe this was the first specimen to be obtained in Arabia and the skin is now in the British Museum.

From its appearance, with white bases to primaries and wing length of 103-104 mm. this bird was considered to be of the race *P*. *r*. *capensis*.

Whilst photographing the grebe, in the evening, a Quail Coturnix coturnix dropped out of the sky and was picked up. This bird appeared to recover after a day's rest, during which time it was offered water and cress seeds. It was released the following evening and was last seen flying strongly southwards. Of the various exhausted migrants picked up, this was the only one which appeared to recover.

25th: A Yellow Wagtail on camp.

26th: A crake was seen skulking beneath a caravan in the early morning. Time was not available for an immediate identification or possible capture, but it was fortunately still around in the evening when it was eventually caught. It was in fact a *Baillon's Crake *Porzana pusilla*, probably an immature.

Measurements were as follows. Wing 90–91 mm., culmen 15.5 mm., longest secondary 78 mm. The bird appeared in good condition and was released the following evening. Like the Quail it flew off strongly southwards, but returned towards camp, alighted, and was not seen again.

28th: A Great Grey Shrike was seen in open country, an unusual habitat, and may have been a migrant.

In November, at the Wadi Zibra camp a few Swallows and White Wagtails were recorded daily until the 10th. A *Cattle Egret *Ardeola ibis* arrived on camp and stayed two days. Swallows were still passing through in small numbers up until 2nd December and possibly later. At the Yawa camp west of Wadi al Ayn, no migrants were seen during the second half of November and December, apart from winter visitors; a late Swallow was, however, seen nearer the mountains on 17th December.

SUMMARY

During 1966-67, 75 species were identified in Interior Oman, five other species were probably identified and the identity of three other species remain vague. It is difficult to find any specific records from Interior Oman in Meinertzhagen's Birds of Arabia. The distribution details given for many species are vague, with information such as "recorded throughout our area" and "recorded near Muscat and Oman", making it difficult to determine just which species have been recorded in Oman. Virtually all the species mentioned in this paper are probably new records for the Interior and the 15 species marked with an asterisk are thought to be new for Oman. The Little Grebe is believed to be the first to be obtained in Arabia. Mention should be made of two species which are marked as probably new to Oman; a later record of the Spotted Crake has already been reported in the paper "Observations on wildfowl on the Batinah Coast, Muscat and Oman, South-east Arabia, 1962-1967" which appeared in the Bulletin, vol. 88, no. 4. Terek Sandpipers were seen regularly on the Batinah coast during February-April 1967, before the June 1967 record mentioned in this paper.

In conclusion I would like to add that the observations contained in this paper were, for the most part, made during very limited spare time, and in the course of a time-demanding seven-day-week occupation. Given the opportunity of visiting this area, someone better qualified, equipped for collecting, and with sufficient time, would undoubtedly turn up many new and interesting records.

ACKNOWLEDGMENT

I am most grateful to Dr. Jeffery Harrison whose infectious enthusisam encouraged me to write this paper.

Reference:

Meinertzhagen, R. 1954. The Birds of Arabia. Oliver & Boyd.